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Activity 1 - ERD Practice Questions

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The Cinema Chain

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Task Scenario

You have been asked to create a database for the East Berkshire Cinema Multiplex. Currently all records are stored on a spreadsheet.

The surgery would like to be able to store and report data on how the cinema is used. The cinema has two screens, one has 500 seats, the other has 400 seats

The cinema has several films showing and it records the different types of film.

Films belong to categories U, PG, 12, 15 and 18.

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Task Scenario

When people go to the cinema they can:

Pick the screen

Pick the date of the performance

Book tickets. The minimum number booked is 1 and the maximum booked is 5

Pick the seat type – standard seating is £10, Luxury seating is £15, Premium is £20

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The Data

BookingID	ScreenID	FilmID	Booking Date	Film Title	Film rating	Screen Seats	Screen Name	Num Tickets	Seat ID	Seat Type	Seat Price
101	1	27	21/07/2020	Jaws	PG	500	A	4	1	Standard	£10

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Step 1 – Identify The Primary Keys

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Step 1 – What cam we see from the data?

- What can we see from the supplied data?
- There is a BookingID
- There is a ScreenID
- There is a FilmID
- There is a SeatID

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Step 1 – Identify the Primary Keys

THESE MUST BE PRIMARY KEYS

THAT MEANS WE HAVE **AT LEAST 4** TABLES

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Step 1 – Identify the Primary Keys

Key	Table	Description
BookingID	tblBooking	Stores booking information
ScreenID	tblScreen	Stores screen information
FilmID	tblFilm	Stores film information
SeatID	tblSeat	Stores information about the seats

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Glossary – Relational Database 1

Key Term	Definition
Attribute	Another name for a Column (or Field) in a Table in a Database.
Cardinality	A measure of how unique values within a column are. A Primary Key column would have High Cardinality, an ‘IsStudent’ column would have Low Cardinality.

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Glossary – Relational Database 2

Key Term	Definition
Entity Relationship	How data inside one Table is linked to data inside another Table in the same database. Relationships can be one:one, one:many and many:many.
Generic	

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Glossary - Normalisation

Key Term	Definition
Cascading Update	When any Updates made in one Table are reflected in other Tables that are Joined by a Foreign Key.

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Glossary – SQL

Key Term	Definition
Query	The process of asking a Database a question to get a specific answer.
Select	Specifies the Column or Columns of data you want back from your query, from a Table or Tables within a Database.

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